Amendment to the Claims

1. (currently amended) A system for communication ~~between~~ by a local host ~~and a remote host that are~~ that is connectable by a network to a remote host, the system comprising:

a communication processing device (CPD) that is integrated into the local host to connect the network and the local host, said CPD including hardware ~~logic~~ configured to ~~process~~ analyze Internet Protocol (IP) and Transmission Control Protocol (TCP) headers of network packets, and

a central processing unit (CPU) running protocol processing instructions in the local host to create a ~~transport layer~~ TCP connection between the local host and the remote host, said CPU providing to said CPD a media-access control (MAC) address, an IP address and a TCP port that correspond to said connection, wherein said CPD and said CPU are configured such that a message transferred between the network and the local host is generally processed by said CPD instead of said CPU when said CPD controls said connection and said message corresponds to said connection.

2. (currently amended) The system of claim 1, wherein said ~~hardware logic is configured to process Transmission Control Protocol (TCP)~~ CPU provides to said CPD an address in local host memory for storing application data from said message.

3. (currently amended) The system of claim 1, wherein said ~~transport layer connection is a Transmission Control Protocol (TCP) connection~~ CPU provides to said CPD an address in local host memory for retrieving application data corresponding to said connection.

4. (original) The system of claim 1, wherein said CPD is connected to said CPU by a bus.

5. (original) The system of claim 1, wherein said CPD includes a microprocessor.

6. (original) The system of claim 1, wherein said CPD is connected to an input/output (I/O) controller.

7. (original) The system of claim 6, wherein said I/O controller is a peripheral component interconnect (PCI) bridge.

8. (original) The system of claim 1, further comprising a memory that is disposed in said host and accessible by said CPU and said CPD.

10. (original) The system of claim 1, wherein said CPD is integrated with a peripheral component interconnect (PCI) bridge.

11. (original) The system of claim 1, wherein said CPD is integrated with a memory controller for said CPU.

12. (original) The system of claim 1, wherein said CPD is integrated with an I/O controller and a memory controller for said CPU.

13. (original) The system of claim 1, wherein said CPD is connected with an I/O controller that connects said CPD to a memory controller for said CPU.

14. (original) The system of claim 1, wherein said CPD is connected to a hub interface bus that connects a memory controller to an I/O controller.

15. (canceled)

16. (original) The system of claim 1, wherein said message is received from the network by the local host.

17. (currently amended) A system for communication ~~between~~ by a local host ~~and a remote host that are~~ that is connectable by a network to a remote host, the system comprising:

a communication processing device (CPD) that is integrated into the local host to connect the network and the local host, said CPD including hardware ~~logic~~ configured to ~~process~~ analyze Internet Protocol (IP) and Transmission Control Protocol (TCP) headers of network packets, and

a central processing unit (CPU) running protocol processing instructions in the local host to create a ~~transport layer~~ TCP connection between the local host and the remote host, said CPU providing to said CPD a media-access control (MAC) address, an IP address and a TCP port that correspond to said connection, wherein said CPD and said CPU are configured such that a packet transferred between the network and the local host is processed by said CPD and not by said CPU when said CPD controls said connection and said packet corresponds to said connection.

18. (original) The system of claim 17, wherein said CPD is connected to said CPU by a bus.

19. (original) The system of claim 17, wherein said CPD includes a microprocessor.

20. (original) The system of claim 17, wherein said CPD is connected to an input/output (I/O) controller.

21. (original) The system of claim 17, wherein said CPD is connected to a peripheral component interconnect (PCI) bridge.

22. (original) The system of claim 17, further comprising a memory that is disposed in said host and accessible by said CPU and said CPD.

23. (original) The system of claim 17, wherein said CPD is integrated with a peripheral component interconnect (PCI) bridge.

24. (original) The system of claim 17, wherein said CPD is integrated with a memory controller for said CPU.

25. (original) The system of claim 17, wherein said CPD is integrated with an I/O controller and a memory controller for said CPU.

26. (original) The system of claim 17, wherein said CPD is connected with an I/O controller that connects said CPD to a memory controller for said CPU.

27. (original) The system of claim 17, wherein said CPD is connected to a hub interface bus that connects a memory controller to an I/O controller.

28. (original) The system of claim 17, further comprising an ownership bit disposed in the local host, said ownership bit designating whether said CPU or said CPD controls said connection.

29. (original) The system of claim 17, wherein said packet is received from the network by the local host.

30. (currently amended) A system for communication ~~between~~ by a local host ~~and a remote host that are~~ that is connectable by a network to a remote host, the system comprising:

a central processing unit (CPU) disposed in the local host and running protocol processing instructions to create a Transmission Control Protocol (TCP) connection between the local host and the remote host, said CPU processing a first network packet corresponding to said connection; and

a communication processing device (CPD) integrated into the local host and connected to the network, said CPU providing to said CPD a media-access control (MAC) address, an Internet Protocol (IP) address and a Transmission Control Protocol (TCP) port that correspond to said connection, said CPD receiving control of said connection from said CPU, said CPD classifying a second network packet as corresponding to said connection and processing said second network packet without any protocol processing of said second network packet by said CPU.

31. (original) The system of claim 30, wherein said CPD is connected to said CPU by a bus.

32. (original) The system of claim 30, wherein said CPD includes a microprocessor.

33. (original) The system of claim 30, wherein said CPD is connected to an input/output (I/O) controller.

34. (original) The system of claim 30, wherein said CPD is connected to a peripheral component interconnect (PCI) bridge.

35. (original) The system of claim 30, further comprising a memory that is accessible by said CPU and said CPD.

36. (original) The system of claim 30, wherein said CPD is integrated with a peripheral component interconnect (PCI) bridge.

37. (original) The system of claim 30, wherein said CPD is integrated with a memory controller for said CPU.

38. (original) The system of claim 30, wherein said CPD is integrated with an I/O controller and a memory controller for said CPU.

39. (original) The system of claim 30, wherein said CPD is connected with an I/O controller that connects said CPD to a memory controller for said CPU.

40. (original) The system of claim 30, wherein said CPD is connected to a hub interface bus that connects a memory controller to an I/O controller.

41. (original) The system of claim 30, further comprising an ownership bit disposed in the local host, said ownership bit designating whether said CPU or said CPD controls said connection.

42. (original) The system of claim 30, wherein said second network packet is received from the network by the local host.